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AUTHOR Chitayat, Deanna; And Others
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ABSTRACT

A study examined nine strategies for disseminating "The New Occupational Student: Mature Adult Woman," a counseling program for re-entry women at thirty-nine two-year colleges in New York State. The major purpose was to determine whether there was a particular service or combination of services that was most conducive to the implementation of the program. Pre- and post-treatment surveys were employed to evaluate the impact of various interventions which offered pretested materials and nine combinations of facilitator services. Results indicated that two treatments--(1) Pre-program planning and followup planning and (2) Motivation Advance Process staff training and program planning--were the most effective in disseminating the program. Additional conclusions and recommendations are these: (1) two or more days of facilitator services significantly enhance the probability of successful dissemination; (2) a facilitator may not be necessary for staff training if adequate auto-tutorial materials are made available; however, (3) a facilitator is necessary to assit school personnel in planning innovation; and (4) facilitator services seem to be more effective when an administrator with decision making responsibility is present. A significant improvement over the level of pre-treatment services for the target group was noted, as nineteen colleges were planning to implement a program for counseling reentry women, and sixteen were planning to adopt the program. (MEK)

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Institute for Research and Development
in Occupational Education
Center for Advanced Study in Education
The Graduate School and University Center
of the City University of New York
32 West 42nd St., New York, N.Y. 10036
(212) 221-3895/6

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A COMPARISON OF NINE STRATEGIES FOR DISSEMINATING A COUNSELING PROGRAM FOR RE-ENTRY WOMEN*

Deanna Chitayat
Anita Baskind
Cecile Segal

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A virtual explosion of new educational methods and materials has taken place in the past few decades. Some of the enormous expenditure formerly targeted for developing these innovations now needs to be channelled towards dissemination. Change agents are becoming increasingly concerned over the fact that successful innovations in one setting are seldom implemented in another. It is difficult to justify the expenditure of millions of dollars for educational innovation without demonstrating that these innovations have had broad impact on educational practice.

In 1974-1976, a preadmission group counseling service had been successfully pilot tested with a diverse population of re-entry women at five colleges. Essentially the program consisted of: a) the Motivation Advance Process designed to increase self esteem and achievement, b) career exploration, and c) college information. Subsequently, a videotape with manual, a film, and a handbook were developed for staff training and as aids in program planning. In 1978 an extensive study was undertaken to examine the process of disseminating this program to all community colleges and agricultural and technical colleges in New York State.

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Extensive research examining the dissemination process (Fullan and Pomfret, 1977; Berman and McLaughlin, 1976; Arends, 1976) has revealed that, generally, dissemination efforts have failed. The authors of these various studies have suggested that dissemination of innovative programs requires staff training and careful program planning, with the aid of a facilitator. The present study was undertaken to examine the role of facilitator services in dissemination.

Nine strategies for disseminating a preadmission counseling program for re-entry women [The New Occupational Student: Mature Adult Woman (NOSMAW) Program] were examined in thirty-nine two-year colleges in New York State. All colleges were offered a pretested set of materials and one of nine different combinations of facilitator services.

The materials provided sufficient information to enable the colleges to plan the program without outside assistance. Also, an auto-tutorial procedure (in the form of a videotape and manual) had been developed and pretested to enable counselors to train themselves for leadership in the Motivation Advance Process (MAP) (Chitayat and Berens, 1978; Chitayat, 1977). MAP was considered to be an essential component of the NOSMAW project.

In addition to offering free materials, three kinds of facilitator services were offered to the colleges: MAP staff training; a program planning session; a follow-up planning session. Facilitator services could be provided either at the college, i.e., on site, or with several colleges at a central location. Of all the possible combinations of these independent variables, nine were chosen for examination. Four or five colleges were assigned to each strategy.

The on site strategies were: S(1) Mail Materials (no services); S(2) Program Planning service; S(3) Program Planning and Follow-up Planning services; S(4) MAP Staff Training service; S(5) MAP Staff Training and Program Planning services; S(6) MAP Staff Training, Program Planning, and Follow-up Planning services. The central site strategies, S(7), S(8), and S(9) were identical to strategies S(4), S(5), and S(6) respectively except for the location of facilitator services. (See Table 1)

One pre-treatment survey and two post-treatment surveys were designed to evaluate the impact of the various NOSMAW interventions. In addition, a formative evaluation provided information about the ongoing dissemination services.

In determining the effectiveness of the various dissemination strategies, rigorous criteria were established to define a NOSMAW adoption or planned implementation. A NOSMAW program was defined as: preadmission counseling program conducted over an extended period of time in group format; targeted exclusively for re-entry women; containing MAP, career counseling, and college information. A college was considered to have adopted NOSMAW or to have planned implementation of NOSMAW only when they provided evidence of: administrative approval, assignment of a coordinator, a detailed program, and a time schedule.

Given the above criteria, as of July 1978, 19 colleges were planning a full preadmission counseling program for re-entry women; 16 of these were NOSMAW adoptions. Another two colleges were awaiting approval; 10 colleges were not implementing the program; and the outcome for one college is not available. This is a significant improvement over the pre-treatment level of services for the target group.

TABLE 1

Dissemination Strategies and Facilitator Services

Strategy	Number of Facilitator Contact Days	Type of Service
S(1)	0	Mail Materials
	On Site	
S(2)	1	Program Planning
S(3)	2	Program Planning Follow-up Planning
S(4)	1	MAP Staff Training
S(5)	2	MAP Staff Training Program Planning
S(6)	3	MAP Staff Training Program Planning Follow-up Planning
	Central Site	
S(7)	1	MAP Staff Training
S(8)	2	MAP Staff Training Program Planning
S(9)	3	Map Staff Training Program Planning Follow-up Planning

The major finding of the pre-treatment survey was that New York State two-year colleges had virtually no special preadmission counseling services specifically geared to deal with the special problems of re-entry women. Although many colleges were breaking down some of the institutional barriers towards re-entrance, only two colleges were dealing with the psychological barriers women face when they contemplate returning to school. The dearth of preadmission counseling programs for re-entry women, along with the need expressed by the college administrators for attracting new student groups, made New York State two-year colleges a fertile ground for the NOSMAW dissemination effort. And, in fact, 32 out of 39 colleges accepted the offer of NOSMAW services and/or materials. Thus, the first conclusion to be drawn from this study is:

Conclusion 1. Schools are likely to become interested in an innovative program when they recognize an unmet need on their own campus.

Colleges were most likely to accept an offer when the services provided included program planning (96%). Highest rejection rates occurred when no services were provided (materials only) or when the services were limited to staff training (a 50% rejection rate). A second and third conclusion can be drawn.

Conclusion 2. There is likely to be a greater interest in a new program when the innovators provide services in addition to materials.

Conclusion 3. Attraction to an innovative program is increased more by the offer of assistance with program planning than by assistance with staff training.

One month following the initial intervention 19 colleges reported that they had made a decision to implement a full preadmission counseling program for re-entry women. Six of these colleges had taken rapid strides toward implementation. Several hypotheses were tested in an attempt to understand how these colleges differed from those that indicated slow or no progress towards implementation. χ^2 revealed that rapid progress towards implementation was not dependent on treatment or on number of administrators present during facilitator directed sessions, but rather on the level of pre-existing services for mature women. Thus a fourth conclusion can be drawn.

Conclusion 4. Rapid and concrete action towards implementing a new program is dependent on (a) the pre-existing level of readiness at the campus towards perceiving the program as addressing priority issues and, (b) the degree to which the new programs can be integrated with pre-existing skills and services.

This conclusion is not meant to infer that colleges without these qualifications would not implement the program, but rather that progress would be slower because the road was bumpier.

The final survey, conducted one month after the last intervention (the follow-up planning sessions), revealed that there were still 19 colleges planning a preadmission counseling program for re-entry women (16 of these were directly patterned on NOSMAW) but 6 of the sample of 32 colleges had revised their original decision. Three negative decisions had been converted to decisions to implement and three positive decisions were reversed. Thus conclusion 5 is:

Conclusion 5. Both positive and negative initial decisions to implement an innovative program may be labile and need to be reexamined after a time interval has elapsed.

The colleges that had reversed an originally positive decision to implement were surveyed in order to determine the cause of the reversal. The most frequently cited reasons were: lack of personnel, higher than expected student enrollment, disruption in momentum due to summer vacations, and personnel changes.

Conclusion 6. <u>During the early stages of planning, a new program is particularly vulnerable to any changes on campus that result in a disruption of momentum</u>.

Although many colleges perceived lack of funds to be one of the greatest impediments to adopting NOSMAW, in fact, the decision to implement NOSMAW was equally divided between those colleges that had or were anticipating an outside source of funds and those that were not relying on funds.

Conclusion 7. <u>An outside source of funding is not critical to the decision to implement</u>.

<u>Comparison of Strategies</u>

The major purpose of this study was to determine whether there was a particular service or combination of services that was most conducive to program implementation. The evidence from this study indicates that S(3) Program Planning and Follow-up Planning, and S(5) MAP Staff Training and Program Planning, were most effective in disseminating NOSMAW. Both S(3) and S(5) required two days of facilitator services. A χ^2 test of independence revealed that the decision to implement NOSMAW was dependent on the number of facilitator contact days.

The data revealed that a single day of service was significantly less likely to result in a NOSMAW adoption than 2 or 3 days of service.

However, the type of service, MAP staff training or program planning or follow-up planning, did not appear to be the determining factor.

Conclusion 8. The provision of two or more days of facilitator services significantly enhances the probability of successful dissemination.

Although all colleges received the auto-tutorial materials for MAP, colleges assigned to S(4)-(9) also had the services of a facilitator during staff training. The data revealed that NOSMAW adoption was not dependent on a facilitator for staff training.

Conclusion 9. A facilitator may not be necessary for staff training if adequate auto-tutorial materials are made available.

This conclusion is not meant to infer that careful staff training is not crucial to implementing a new program. We believe it is. However, there may be acceptable alternatives to having the program innovators provide the training. An auto-tutorial format for materials that provide experiential training appears to be one possible alternative.

Although MAP staff training could be achieved without the facilitator, there was a strong need expressed by the participants to integrate this new technique both within their professional background and within the total structure of the NOSMAW program.

Conclusion 10. A facilitator is necessary to assist school personnel in integrating new skills within the total set of past experiences and the anticipated set of new experiences, i.e., the planned innovation.

A somewhat unexpected outcome of this study was that the central site strategies were relatively ineffective. The concept underlying the central site strategies, S(7), S(8), and S(9) is that through linkage, the effects of training and planning can be multiplied by working with a few people who could then act as catalysts for training and planning with others on their own campus. It would seem that the effectiveness of such a system would depend on the general level of decision-making influence of the few people who are to receive the services directly. During the on site visits, the facilitator always worked with someone relatively high on the decision-making ladder. In contrast, at the central site, only one college (out of 9) was represented by an administrator.

Conclusion 11. Central site facilitator services for college representatives are less effective than dissemination strategies that do not depend on linkage.

Conclusion 12. Facilitator services would seem to be more effective when an administrator with decision-making responsibility is present.

Cost/Effectiveness and Cost/Utility

An analysis of the cost/effectiveness and cost/utility of each of the strategies indicated that S(1) Mail Materials (no services) required the lowest expenditure per implementation whereas the central site strategies, particularly S(7) and S(8), were the most expensive because they were ineffective. (See Table 2)

Although all the strategies were considerably more expensive to service than S(1) Mail Materials, the effectiveness rate index of two strategies S(3), S(5) in achieving implementation of the program makes them relatively cost effective. S(4) MAP Staff Training achieved a low

TABLE 2

Cost/Effectiveness and Cost/Utility of Dissemination Strategies

Strategy	Cost of Services Index[a,b]	Benefits[b,c,d]		Cost/Benefit Ratios[g]	
		Effectiveness[e] Rate Index	Utility[f] Rate Index	Cost/ Effectiveness	Cost/ Utility
S(1) Mail Materials	100	100	100	1.0	1.0
ON SITE					
S(2) Program Planning	1000	40	80	25.0	12.5
S(3) Program Planning Follow-up Planning	1800	200	400	9.0	4.5
S(4) MAP Staff Training	1000	100	100	10.0	10.0
S(5) MAP Staff Training Program Planning	1600	160	320	10.0	5.0
S(6) MAP Staff Training Program Planning Follow-up Planning	2500	100	200	25.0	12.5
CENTRAL SITE					
S(7) MAP Staff Training	1000	0	0	**	**
S(8) MAP Staff Training Program Planning	1400	0	0	**	**
S(9) MAP Staff Training Program Planning Follow-up Planning	2300	100	200	23.0	11.5
Median [S(2) - S(9)]	1500	100	150	15.0	10.0

[a] Cost Index = $\frac{\text{Cost S(X)}}{\text{Cost S(1)}}$ X 100. Costs are for servicing four schools per strategy. Costs included travel, per diem, facilitator fee, participant lunches. Costs were approximated to the nearest $50.00.

[b] Base = S(1) Mailing = 100.

[c] Benefits are defined in terms of rates of implementation relative to: 1) colleges serviced (effectiveness), and 2) colleges offered services (utility).

[d] Rate Index = $\frac{\text{Rate S(X)}}{\text{Rate S(1)}}$ X 100. Greater benefits are reflected in higher indices.

[e] Effectiveness Rate = $\frac{\text{Number of colleges implementing NOSMAW}}{\text{Number of colleges serviced}}$ Conversion of "rate" to "index" is shown in 'd'.

[f] Utility Rate = $\frac{\text{Number of colleges implementing NOSMAW}}{\text{Number of colleges offered services}}$ Conversion of "rate" to "index" is shown in 'd'.

[g] Greater cost/benefits are reflected in lower ratios. Ratios are computed by dividing costs by benefits.

** = Infinite

cost/effectiveness ratio primarily because of its low costs. It was no more effective in achieving implementations than S(1).

An analysis of cost/utility provided information on the total impact of each strategy, i.e., the strategy's capacity for initially attracting potential users and its effectiveness in achieving implementation. A utility index was established for each strategy by obtaining a ratio between the number of implementations and the number of colleges offered services and then comparing this to the ratio for S(1). The highest utility indices were obtained for strategies that offered the colleges the most services. When cost is taken into account, S(1), the no service strategy, and S(3) and S(5), the strategies with two days of service, achieved the best cost/utility ratios. Three days of services did not provide sufficient gains in outcome to compensate for additional costs.

College Personnel as Potential Users of an Innovative Counseling Program

Almost all of the colleges contacted recognized an unmet need on their campus for attracting new student groups. The main issue was how to propel the college from recognition of a need to implementation of a program. Secondly, how were college administrators to be convinced to deploy scarce resources towards servicing women prior to actual enrollment.

Generally the college administrators were concerned with pragmatic solutions to current problems. Counselors were likely to gain support for the program if they were able to relate the enrollment of mature women to such administrative concerns as: shrinking enrollments, shrinking funds, cuts in faculty and staff, underutilized resources. Administrators needed to be made more aware that mature women were an asset on campus: i.e., they increase student enrollment; they are committed, successful

students; they bring a new dimension to the classroom; and they enhance community/college public relations.

Most colleges did not realize that in order to reach mature women they would have to augment their traditional recruitment and counseling techniques to address the special concerns of this group. Administrators had to be sensitized to the fact that women in transition from home to school have needs in addition to assistance with registration and curriculum choice. The concerns of mature women were not being addressed in counseling services geared to 18 and 19 year olds or even to a generally adult population.

The community college counselors, and others who were generally motivated to provide services for returning women, did not have the decision-making clout to implement a new program. This problem was exacerbated by the fact that they didn't know how to use the power they did have:

- Most counselors did not know how to build a power base for their programs. Although the "Women's-issue" had small pockets of support throughout the campuses, many counselors had not gone beyond their department to identify and martial these sources of support.

- Many counselors did not understand the sequence of preliminary activities needed to achieve administrative support for the program. The counselors felt they had to receive official authorization before proceeding with plans for the program. They had to be convinced that a detailed action plan which included specific goals, recruitment activities, workshop content, personnel, time, and cost was an essential element in convincing the administration that the program was viable.

- Most counselors had to be sensitized to an administrative perspective. In discussing methods of obtaining administrative support for the program, the counselors tended to focus on the value of the program for women. They needed assistance in refocusing on the pragmatic issues that would be of concern to the administrators, i.e., the school needs this program for reasons "a," "b," and "c;" the program can be accomplished through method "d," "e," and "f;" it will cost "l," "m," and "n;" and the benefits to the school will be "x," "y," and "z."

In that almost all the counselors we worked with were women, it was difficult to determine whether the problems they encountered vis-a-vis administrators may have been due to women's career-long absence from the centers of power or were perhaps related to some aspect in the selection and training of all counselors.

Policy Implications and Recommendations

Change agents, program innovators, and grant administrators have been rightfully concerned about the impact of new programs on educational practice. The nine dissemination strategies examined in this study provide some basis for a reassessment of traditional dissemination activities.

The relative ineffectiveness of the central site dissemination strategies [S(7), S(8), S(9)] is particularly instructive. These strategies were modeled after traditional dissemination approaches, such as professional meetings, conferences, workshops, and a number of similar activities. These activities are, in essence, efforts by program innovators to disseminate skills and ideas to representatives from many schools at a central location. Presumably, knowledge gained in these meetings are disseminated to colleagues, students, etc., through a linkage process. The evidence from this study suggests that although central location strategies are a relatively quick and easy approach to

dissemination, in the long run they are ineffective and, therefore, expensive. The impact of central location dissemination strategies probably is dependent, to a large degree, on the participants' decision-making capacity at their home campus. Therefore, our recommendation to change agents is:

- Professional conferences and workshops to be held off campus should not be funded for the purpose of dissemination unless they are targeted towards substantial teams of school representatives which include an administrator with decision-making capacity.

Dissemination goals of change agents may differ according to priorities, available funds, and the particular innovation to be disseminated. For instance, under one particular set of circumstances, the change agent's priority may be the dissemination of the program to as many schools as possible. In yet another set of circumstances, there may be a need to disseminate the program to a particular set of schools. This study has revealed that decisions concerning cost/effectiveness of the various strategies should be dependent on what specific goal is to be satisfied. From our study, we can recommend the following:

- If adequate auto-tutorial staff training and program planning materials are available, then the most cost/efficient way of disseminating a program to the largest number of schools is to simply supply the staff with the materials.

Knowledge about the existence of the innovative program and its materials will stimulate only a small percentage of schools to request the materials. Among those schools requesting the materials, only a percentage will actually use them, and only a fraction of these will eventually implement the program. However, one can compensate for the low utility rate of a no-service strategy by publicizing the availability of the materials to a very large number of potential users. Thus, while

the utility rate may be low in a "shot gun" approach, (i.e., broad publication and mailing), the absolute number of implementations could be quite high.

There are other circumstances where we would recommend a spearheaded rather than a shot gun approach:

- If the change agent wishes to encourage the implementation of an innovative program in a particular area or in specially targeted schools, then funds should be invested for the provision of several days of facilitator services at individual campuses for the purpose of staff training and program planning.

Although the provision of several days of facilitator services at individual schools may appear to be an exceptionally expensive method of dissemination, its high rate of success in attracting potential users and in achieving implementation of a new program gives this spearheaded approach good cost/effectiveness and cost/utility ratios.

The auto-tutorial format of the staff training materials and the program planning guide was an essential component to the dissemination effort. All thirty-two colleges used the materials whether or not there was a facilitator present to guide them. These materials were responsible for the relative effectiveness of S(1), the no-service strategy. The fourth recommendation is:

- Grant agencies should request disseminable, pre-tested products for program planning and staff training at outcomes of successful demonstration programs.

It is not always possible to develop and pilot-test materials during the same year one is developing and evaluating an innovative program. However, subsequent support of these programs should be made contingent on

the production and evaluation of program planning and staff training materials for utilization in schools other than the demonstration site. Such materials substantially increase the possibility of many schools benefiting from funds allocated to a few demonstration sites.

In our sample, 19 colleges had made extensive plans for implementing a preadmission counseling program for women during 1979-1980. The present study on dissemination processes is incomplete insofar as we have no knowledge as to whether the intentions of last spring were carried through to fruition in the fall. Research on the dissemination process has revealed that there is a gap between adoption, i.e., acceptance of a program, and implementation. Although this study applied stringent criteria in determining whether the dissemination effort was successful or unsuccessful at a particular college, there is a need to do a follow-up study on actual outcomes.

- Research into the dissemination process should be longitutional so that outcomes can be assessed.

An essential element, often absent in studies on dissemination, is an assessment of the quality of the program that is implemented in the target schools. Related questions have to do with modifications of the innovative program by practitioners, student and institutional outcomes, and long range plans.

- Research into the dissemination process should include an assessment of the quality of the program that is implemented at the dissemination site.

In order for dissemination to occur, several conditions need to be met: (1) practitioners must perceive that a need or a problem exists;

(2) practitioners must be aware of the possibility for improving the current state of affairs; (3) there must be a means for transmitting the improvement in part or in whole. It is not always easy to move a solution to a problem, i.e., an innovation, from its place of origin to a new setting. However, it is only through generalizing solutions of problems across many settings that real gains in education can be made.

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